

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference HJFI 20021249	FOR FURTHER ACTION See Form PCT/IPEA/416																	
International application No. PCT/FI 2003/000469	International filing date (day/month/year) 12.06.2003	Priority date (day/month/year) 26.06.2002																
International Patent Classification (IPC) or national classification and IPC B66C 1/10, B66C 1/66, B66F 9/18																		
Applicant Finnlines Oyj et al.																		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <u>3</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.1.6 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheet which supersedes earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____ containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <table> <tbody> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII Certain observations on the international application</td> </tr> </tbody> </table>			<input checked="" type="checkbox"/>	Box No. I Basis of the report	<input type="checkbox"/>	Box No. II Priority	<input type="checkbox"/>	Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI Certain documents cited	<input type="checkbox"/>	Box No. VII Certain defects in the international application	<input type="checkbox"/>	Box No. VIII Certain observations on the international application
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Date of submission of the demand 12.01.2004	Date of completion of this report 25.08.2004
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. +46 8 667 72 88	Authorized officer Björn Lindkvist/EK Telephone No. +46 8 782 25 00

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on a translation from the original language into the following language English, which is the language of a translation furnished for the purposes of:

international search (under Rules 12.3 and 23.1(b))
 publication of the international application (under Rule 12.4)
 international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

the international application as originally filed/furnished
 the description:
 pages 1 - 8 as originally filed/furnished
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____

the claims:
 pages _____ as originally filed/furnished
 pages* _____ as amended (together with any statement) under Article 19
 pages* 1 - 3 received by this Authority on 22.06.2004
 pages* _____ received by this Authority on _____

the drawings:
 pages 1 - 7 as originally filed/furnished
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. The amendments have resulted in the cancellation of:

the description, pages _____
 the claims, Nos. 11 _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to the sequence listing (*specify*): _____
4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages _____
 the claims, Nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to the sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/FI 2003/000469

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1-10</u>	YES
	Claims	_____	NO
Inventive step (IS)	Claims	<u>1-10</u>	YES
	Claims	_____	NO
Industrial applicability (IA)	Claims	<u>1-10</u>	YES
	Claims	_____	NO

2. Citations and explanations (Rule 70.7)

This report has been based on the new claims 1-10, as amended under article 19.

The claimed invention

The claimed invention relates to a method and a device in the handling of containers, by means of which device at least two containers are handled, which device comprises a frame, to whose guides end pieces have been movably attached, which end pieces comprise attachment members for attaching the device to the corner fittings of the lowermost container(s) of the containers placed on top of one another.

The following documents have been cited in the International Search Report

- D1: US 6 138 846 A
- D2: DE 3 621 648 Al
- D3: WO 98/06656 Al
- D4: US 5 718 550 A
- D5: GB 2 147 266 A

The documents cited in the International Search Report represent the prior art. The claimed invention stated in claims 1-10 is not considered to be anticipated by these documents. None of the documents or any relevant combination of them reveals a method and a device in the handling of containers as described by these claims.

According to the arguments stated above, the invention claimed in claims 1-10 is novel, considered to involve an inventive step and has industrial applicability.

DT05 Rec'd PCT/PTO 13 DEC 2004

Amended Claims

1. A device in the handling of containers, by means of which device (30) at least two containers (10) are handled, which device (30) comprises a frame (10), to whose guides (11) end pieces (12) have been movably attached, which end pieces (12) comprise attachment members (31, 32) for attaching the device (30) to the corner fittings of the lowermost container(s) (20) of the containers (20) placed on top of one another, **characterized** in that guide pins (34) used for aligning the device (30) have been fixed to the end pieces (12) moving on the guides of the frame (10), which guide pins have been arranged to be placed into the apertures in the upper surface of the top corner fittings of the uppermost container(s) of the containers (20) placed on top of one another, and that the device (30) is a lifting device attached to a length-adjustable gripping member of a container transfer device by its twist lock pins.
- 15 2. A device as claimed in claim 1, **characterized** in that the device (30) comprises attachment members (31, 32) which are attached to the apertures of the corner fittings of the container (20) and which attachment members (31, 32) have been placed on the end pieces of the device (30) which have been connected to each other with longitudinal frame structures (10, 11).
- 20 3. A device as claimed in claim 1 or 2, **characterized** in that the frame (10) of the device (30) is a framework provided with guides (11).
- 25 4. A device as claimed in any one of claims 1 to 3, **characterized** in that the end pieces (12) of the device (30) comprise horizontal beams (15) movable on the guides (11) of the frame (10), support beams (13) and attachment points (33₂₀, 33₄₀) for twist lock pins of a container transfer device, and vertical beams (16) and beams (17, 18) to which the attachment members (31, 32) have been fixed.

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5. A device as claimed in any one of claims 1 to 4, **characterized** in that the attachment members (31, 32) are flexible such that the attachment members which are not in use retract inside.
- 5 6. A device as claimed in any one of claims 1 to 5, **characterized** in that the guides (11) of the frame (10) are telescopic frames, so that the length of the frame can be adjusted (FIG. 4).
- 10 7. A device as claimed in any one of claims 1 to 6, **characterized** in that the frame (10) of the device is fixed.
- 15 8. A device as claimed in any one of claims 1 to 7, **characterized** in that the device (10) comprises guide pins (34) which have been arranged to be positioned in the apertures of the upper surface of the top corner fittings of the uppermost container, and a guide member (37) disposed in connection with the end piece to centre the device in place.
- 20 9. A method in the handling of containers, in which method at least two containers (20) are handled by means of a container transfer device, which container transfer device comprises a gripping member or equivalent, in which method at least two containers (20) placed on top of one another are handled and in which method for handling containers (20) a device (30) is used which is placed on the containers (20), placed on top of one another, and attached to corner fittings (21, 22) of the containers (20) such that attachment members (31, 32) 25 situated on end pieces (12) fixed to guides (11) of a frame (10) of the device (30) are arranged to be attached to the apertures in the corner fittings (21, 22) of the container (20), **characterized** in that, in the method, the device (30) is aligned in place by means of guide pins (34) placed on the end pieces (12) moving on the guides (11) of the frame (10), which guide pins (34) are placed in the apertures of 30 the upper surface of the top corner fittings (21) of the uppermost container (20),

and that the device (30) used in the method is a lifting device attached to a length adjustable gripping member of the container transfer device by its twist lock pins.

10. A method as claimed in claim 9, **characterized** in that, in the method, the
device is further aligned in place by means of guide members (37) fixed to the end
pieces (12).